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PRODUCER PRICE INDEXES

**PRODUCER PRICE INDEXES FOR LABOUR RECRUITMENT
AND THE PROVISION OF TEMPORARY WORKERS WITHIN
AUSTRALIA**

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1. Introduction

The Australian Bureau of Statistics publishes producer price indexes for labour recruitment services as two separate indexes: Employment Placement services and Contract Staff services. These indexes were first published in March 2000 with data compiled as far back as September 1998. This paper outlines the development of these two indexes and highlights some difficulties and challenges which have arisen since the development began.

Australia uses the Australian and New Zealand Standard Industrial Classification 1993 (ANZSIC) classification system. Employment Placement (ANZSIC 7861) and Contract Staff Services (ANZSIC 7862) both have partial concordance with ISIC Rev 3. 7491.

2. Background

2.1 Scope

It is common in Australia to refer to employment placement service providers as executive search, as selection or recruitment agencies, as personnel or management consultants, or simply as employment agencies. Personnel placement is the primary activity for firms falling into both Employment Placement (ANZSIC 7861) and Contract Staff Services (ANZSIC 7862).

The two ANZSIC classes may be distinguished as follows:

- Employment Placement (ANZSIC 7861) represents businesses engaged in the provision of employment placement services including search, selection, referral, placements and recruitment on a *permanent basis*; whereas
- Contract Staff Services (ANZSIC 7862) consists of businesses engaged in job placement on a *temporary basis* where wages and associated costs are paid by the business performing the placement ie, the contractor is effectively employed by the contract staff agency.

Some large professional firms in the accounting, banking and legal industries operate their own personnel placement divisions. As placement is not the primary source of revenue for either, these firms will be classified elsewhere by ANZSIC, but their placement *activities* may still account for a significant share of business in the recruitment market, and therefore these in-scope activities are included in the index.

The Australian Federal Government oversees an employment placement scheme within Australia known as the "Job Network". Under the Job Network, placement agencies and the like are contracted to provide training and employment placement opportunities to job seekers. Firms engaged in such contracts are known as "Job Network providers", and to date contracts have been awarded to a range of private, community and government organisations. Under the current price index designs Job Network activities are included in neither the Employment Placement nor Contract Staff Services producer price indexes, although conceptually Job Network providers should be regarded as in-scope of these price indexes. Updating the indexes to correctly cover these firms is considered a review priority.

2.2 Structure and Output

Employment Placement and Contract Staff Services form part of Australia suite of Producer Price Indexes for Service Industries within the Property and Business Division. The structure of this price index, detailing the location of Employment Placement and Contract Staff Services, is provided in Figure 1.

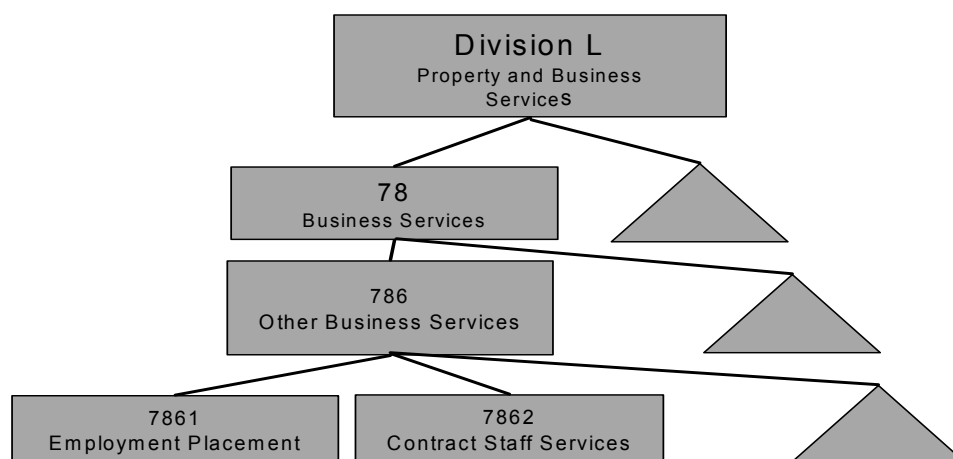


Figure 1

The ABS currently disseminates data at a 4-digit ANZSIC class level. Data are available for both Employment Placement and Contract Staff Services back to September 1998. Higher level aggregated data are published for Other Business Services (786), for Business Services (78) and for the Property and Business Division (Division L).

2.3 Stakeholders

As is the case for other service industry price indexes, the primary stakeholders in the development of this index are internal to the ABS. Specifically, the Australian national accounts require producer price indexes for use as deflators in the measurement of growth in the volume of transactions. Data are also used at the class level for input into the Preliminary and Intermediate Stage of Production (SOP) indexes. For more information about SOP see *Producer Price Indexes, Australia* (ABS cat. no. 6427.0).

The ABS is currently unaware of any explicit external use of the price indexes of Employment Placement or Contract Staff Services, although the aggregated Property and Business Services price index is one of many indicators utilised by the Reserve Bank of Australia in the formulation of monetary policy.

2.4 Industry overview

The diverse and dynamic nature of this industry has created difficulties in the definition of boundaries and measurement of industry turnover. The industry has enjoyed considerable growth in recent years due to fundamental changes in the nature of the jobs market; in particular the once held view that Australians' had a 'job for life' is losing its relevance and candidates must be more flexible in the present climate. Increased acceptance of outsourcing in recent times has contributed to growth, however low capital barriers to entry have produced a fragmented industry rather than one dominated by a few large operators. Such fragmentation allows ease of entry and exit for niche operators, but also restricts profitability.

The Australian employment placement industry can be divided into two major sectors,

either by (a) type or level of positions, or (b) the occupation or industry in which the candidate will be employed into. Within Australia Contract Staff Services tend to fall into category (b).

(a) Examples of type or level of position: Executive, Non-Executive and General Recruitment

(b) Examples of occupation/industry: IT industry, Medical profession, Office workers, Tradesman, Financial sector

Within Australia there are several large cross-industry operators and a large number of niche operators. The niche operators account for the bulk of the industry's revenue with each employment placement agency specialising with placements for a particular industry. The key differences between the niche operators and large operators are that the niche operators tend to focus on a particular segment of the market, where specialised skills or knowledge is required, while the large operators tend to undertake more general recruitment for bulk positions or for non-specialised roles.

3. Index Methodology

3.1 Sampling

ABS price indexes are based on judgement samples, where the sample is selected on the basis of the knowledge and judgement of staff compiling the index. The alternative of using probability (or scientific) sampling would be far more difficult and expensive to use. In particular:

- factors other than sales volume are important when selecting items and respondents. These include availability of prices on an ongoing basis, degree of price dispersion and the pricing behaviour of respondents.
- judgement sampling is more practical in the day to day operations of price collection, where items and respondents regularly need to be replaced.

Interviews with respondents, market reports, and industry associations all help to form the basis for the selection and ongoing maintenance of samples of respondents and items (specifications) for pricing. This information is essential in developing a comprehensive understanding of the market and making appropriate judgements in the sample selection process.

The effectiveness of this sample approach depends on the representativeness at each level of an index. A 'chain of representativeness' approach is adopted in which:

- key commodities are selected to adequately represent the price movements for all the commodities which come within the scope of the particular price index;
- respondents are selected to adequately represent all the suppliers/users of the selected commodities;
- specifications are selected from each respondent to adequately represent the whole product range within the selected commodity description; and
- transaction prices are obtained for each selected specification which best represent the price movements of all transactions for the selected specification.

The use of judgement sampling has implications for the selection of replacement specifications or respondents. Generally, specifications and respondents will be representing a category of specifications or respondents, not just themselves (e.g. a

respondent may represent medium sized firms or a specification may represent a broader product grouping). Therefore the selection of replacements takes into account these characteristics and, as far as possible, ensures that they are still covered by the new specification or respondent.

3.2 *Structure*

The Employment Placement price index is currently comprised of three (3) Elementary Aggregates (EA's). The EAs were determined during index development to adequately reflect the structure of the industry and this structure has remained unchanged since original development. The three EAs are:

a) Executive Placement

This handles director level appointments with salaries above \$150K. The positions and the agency's services are not actively advertised, rather they select from a list of candidates compiled through market research. The selection process is apparently long and the fees for these placements are high. However some players have suggested that the longer duration and higher fees are part of search agencies' attempts to emanate an elitist image.

b) Non-Executive Placement

This handles middle management and mid-range professional positions. These agencies advertise their services and vacancies widely, inviting applications. They advertise regularly in the recruitment sections of all major newspapers. The positions they handle are generally in the salary range \$45K-\$150K. The selection process is similar to that in the executive search sector.

c) Recruitment

This places candidates in various positions including office administration, sales and marketing, and graduate placements. Salary positions generally in the range of \$40K-\$45K are handled. This is by far the largest sector by number of placements and hence presumably revenue. The placement process is similar to the sectors above but is less involved and often caters for mass recruitment.

The Contract Staff Services index contains one Elementary Aggregate: *Contract Staff Services*.

Recent trends show a move toward more specialised services, including more professional and diverse types of contract labour. At the time of index development contract staff services were more generalised, dominated by trades and were highly competitive. Different activities undertaken within the industry were not seen as significant enough to warrant distinct EA's.

Structures for both Employment Placement and Contract Staff Services will be reviewed in the near future. These reviews intend to explore in detail both the practical and data quality issues surrounding improving the coverage and structures of both indexes and are likely to include additional EA's revolving around such activities described in section 2.4.

3.3 *Weights*

Value aggregates for both Employment Placement and Contract Staff Services were derived from the ABS 1996-97 input output (IO) tables and revalued to represent link period values.

Within Employment Placement, value aggregates for the three EAs were determined using a

variety of sources, beginning with the revalued IO data and apportioning this based upon information determined from the Services Industry Survey for Employment Services (1998-99), as well as utilising information determined from industry associations. See *Employment Services, Australia 1998-99* (ABS cat. no. 8558.0).

The ABS currently uses specification level weighting with each elementary aggregate and the resulting price index is calculated using a weighted form of the average of price relatives formula. Specification level weights are determined based on the representation of the selected firm, and the selected activities represented within the firm.

3.4 Pricing basis

The ABS enrolls a respondent into a PPI by conducting an initial personal interview. As well as explaining the nature and frequency of the survey, information is collected from the respondent which determines representative specifications for the particular firm. After the initial contact data are collected on a quarterly basis via a mailed based survey form (mailout-mailback). Depending upon the nature of the particular business operations, prices can be collected for a particular point in time (eg, nearest working day to the 15th of the month), or as an average over a period (eg, prices for the month of June). For PPIs within Australia, data are collected from each respondent on a quarterly basis.

Labour industry price indexes use a range of pricing methodologies. Specification pricing is the ABS preferred method, but data availability and industry pricing arrangements may result in a different method being employed. This is determined on a firm-by-firm and even a commodity-by-commodity basis.

The types of pricing methods used within Employment Placement and Contract Staff Services are:

- (a) *Specification pricing*: where clearly identified and representative products are selected along with conditions of sale;
- (b) *Contract pricing*: where ongoing large contracts with a respondent's key clients are monitored (which in turn requires use of quality adjustment when respondents' change customers);
- (c) *Charge out rates*: where the services is priced per position/employee level, usually on a per hour or per day basis; and
- (d) *Average prices*: which are used for when an homogeneous service is delivered.

In practice the services offered by any given respondent may be priced by using a mixture of the above methods (for example, average charge out rates, or contracts which use charge out rates). Examples of the collection of pricing information for these industries are included in Table 1.

Table 1: Examples of pricing methods

Employment Placement	
Specification	Average prices
<ul style="list-style-type: none"> • Please report current fees charged as a percentage of the first year salary package for the following executive placements: <ul style="list-style-type: none"> • Industry: Consumer/Industrial • Position: Executive Manager • Salary Band: \$400k-600k 	<ul style="list-style-type: none"> • Please provide the average percentage fee for the TOP TEN accounts, in the three months of this quarter, for FULL-time placements: <ul style="list-style-type: none"> • Salary band: \$40K -50K
Contract Staff Services	
Contract pricing	Charge out rates
<ul style="list-style-type: none"> • Please provide the hourly charge rate for client (NSW customer no. 2130D00275) for the following labour service classifications: <ul style="list-style-type: none"> • Administrative/Secretarial • Advanced staff • Please provide the hourly charge rate for the following labour services: <ul style="list-style-type: none"> • Forklift Driver (Grade 3) • For contract customer code MAK. 	<ul style="list-style-type: none"> • Client GPC: Hourly charge out rate for: <ul style="list-style-type: none"> • process worker C12, ordinary day rate

Many firms within the Employment Placement industry charge their services as a percentage of the placed candidates starting salary. As this percentage fee rarely changes over time an adjustment is made to these specifications using the Wage Cost Index (WCI) to account for increases in fees applied as a result of increased remuneration over time.

5. Challenges / Issues on maintaining constant quality

5.1 Pricing the same service over time.

A common issue that applies to all price indexes for service industries is the effort required in obtaining representative specifications which can be priced to constant quality on a quarterly basis. Operational difficulties are frequently encountered when a respondent: (a) has a change in their contact person (where the new contact may not understand how the previous prices were calculated) ; (b) discontinues the services being priced; or (c) undertakes product bundling, where priced services are included along with the provision of other services.

Further, problems particular to Employment Placement and Contract Staff Services are difficulties where the respondent:

- (d) changes the composition of the service provided in some way; or
- (e) uses client price discrimination.

The issues noted above are addressed through regular respondent contact. The ABS attempts to mitigate changing product and other constant quality issues by personally visiting our respondents initially, and then revisiting them periodically to update specifications and record changes occurring within the industry and firm. Compositional issues are addressed by clearly defining the specifications in as much detail as possible, to ensure we price exactly the same service from quarter to quarter. This personal interaction with the respondent is in addition to changes to specifications that may be triggered through the quarterly price collection and compilation processes.

5.2 *Determining specification level weights within elementary aggregates*

As noted above the ABS currently explicitly assigns a weight to each specification within an elementary aggregate. It is difficult with most of the service industry producer price indexes to be assured of correct weighting for elementary aggregates. National accounts data does not extend to commodity transaction data, and for neither Employment Placement nor Contract Staff Services are there robust data sources which give commodity based revenue for the sectors defined in 2.4 above.

Determination of weighting information is therefore heavily dependant on personal visits to respondents, on other ABS surveys and information available through industry associations.

However, the timing, frequency and level of detail of these data mean that the final weights attached to each pricing specification are a compromise at best.

5.3 *Possible downward bias in the Employment Placement index*

Employment placement agencies frequently levy a fixed percentage based upon a the first years remuneration of the placed position. For example, "Mid-level manager with a salary range of \$51,000 to \$55,000 : fee of 31%". The ABS is concerned that the measurement of a fixed fee specification each period fails to allow for real wage growth to be measured. At present the ABS adjusts for wages growth by incorporating the Wage Cost Index in the calculation of the final price; however the ABS is concerned about failure to account for "bracket creep", whereby an indexed bracket may move to a different scheduled fee. The ABS currently has no effective treatment for cases where both the salary band changes over time and the fees change for each band change over time. Given that fees and salaries are increasing over time, the ABS is concerned that there is a possible downward bias in the index as currently reported.

5.4 *Scope and Coverage*

As mentioned in the introduction to this paper the activities of Job Network are in scope of the Employment Placement price index although they not currently covered by this collection. A review will be undertaken in 2005 to expand the coverage of the Employment Placement price index to include these activities.

6. Results

EMPLOYMENT PLACEMENT & CONTRACT STAFF SERVICES

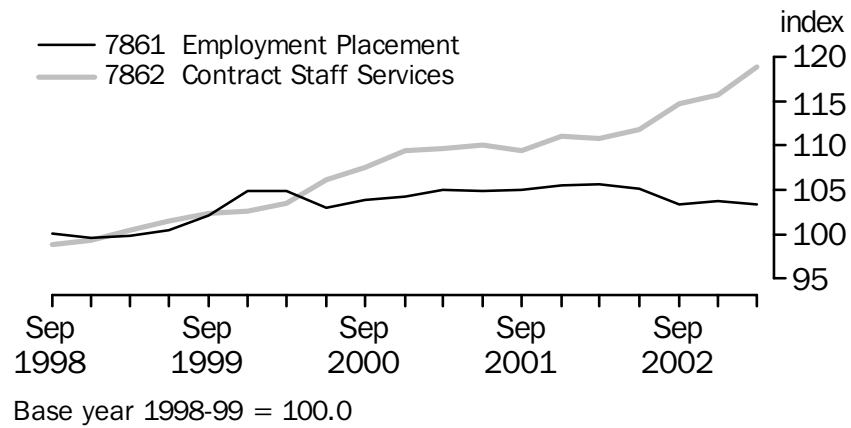


Figure 2

Since the introduction of these indexes, both Employment Placement and Contract Staff Services have seen steady increases. However, the Contract Staff Services index has increased rapidly in recent years, driven by demand for tradesmen in the Construction Industry.

7. References

Employment Services, Australia 1998-99 (ABS cat. no. 8558.0)
Producer Price Indexes, Australia (ABS cat. no. 6427.0)